New York State Department of Environmental Conservation
Division of Environmental Permits, Region 4
1130 North Westcott Road, Schenectady, New York 12306-2014
Phone: (518) 357-2069 • **FAX:** (518) 357-2460
Website: www.dec.ny.gov

Alexander B. Grannis
Commissioner

January 16, 2008

William Morris
Norlite Corp.
628 South Saratoga Street
PO Box 694
Cohoes, New York 12047

RE: DEC # 4-0103-16/16
Norlite Corp
373 HW/APC Permit
Objection to Issued Permit/Request For Hearing
Cohoes(C), Albany County

Dear Mr. Morris,

As a conclusion to our discussions regarding Norlite's objections to the 373 HW/APC permit originally issued to take effect 7/12/2007 the permit is hereby modified in the enclosed agreed to revised permit pages including a new effective date of 1/18/2008. This satisfies the objections raised. Please confirm this resolution in writing withdrawing the hearing request.

If you have any questions please feel free to contact me.

Sincerely Yours,

William J. Clarke

William J. Clarke
Regional Permit Administrator
Region 4

NorliteHWHrgReqRes001.wpd
CC: H. Brezner
S. Chetty/P. Amin
T. Lachell

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DEC PERMIT NUMBER		EFFECTIVE DATE
4-0103-00016/00016	**PERMIT** Under the Environmental Conservation Law (ECL)	Original Issuance Date: 7/12/20007 Modified: January 18, 2008
FACILITY/PROGRAM NUMBER(S) EPA I.D. # NYD080469935		EXPIRATION DATE(S) July 12, 2012

TYPE OF PERMIT (Check All Appropriate Boxes)

☐ NEW ☒ RENEWAL ☐ MODIFICATION ☐ PERMIT TO CONSTRUCT ☒ PERMIT TO OPERATE

☐ ARTICLE 15, TITLE 5: PROTECTION OF WATER	☐ ARTICLE 17, TITLES 7, 8: SPDES	X ARTICLE 27, TITLE 9; 6NYCRR 373: HAZARDOUS WASTE MGMT.
☐ ARTICLE 15, TITLE 15: WATER SUPPLY	X ARTICLE 19: AIR POLLUTION CONTROL	☐ ARTICLE 34: COASTAL EROSION MANAGEMENT
☐ ARTICLE 15, TITLE 15: WATER TRANSPORT	☐ ARTICLE 23, TITLE 27: MINED LAND RECLAMATION	☐ ARTICLE 36: FLOODPLAIN MANAGEMENT
☐ ARTICLE 15, TITLE 15: LONG ISLAND WELLS	☐ ARTICLE 24: FRESHWATER WETLANDS	☐ ARTICLES 1, 3, 17, 19, 27, 37; 6NYCRR 380: RADIATION CONTROL
☐ ARTICLE 15, TITLE 27: WILD, SCENIC & RECREATIONAL RIVERS	☐ ARTICLE 25: TIDAL WETLANDS	☐ ARTICLE 27, TITLE 3, 6NYCRR 364: WASTE TRANSPORTER
☐ 6NYCRR 608: WATER QUALITY CERTIFICATION	☐ ARTICLE 27, TITLE 7: 6NYCRR 360: SOLID WASTE MANAGEMENT	☐ OTHER:

PERMIT ISSUED TO	TELEPHONE NUMBER
Norlite Corporation	(518) 235-0401
ADDRESS OF PERMITTEE P.O. Box 694, Cohoes, New York	
CONTACT PERSON FOR PERMITTED WORK William Morris, Vice President of Environmental Affairs	TELEPHONE NUMBER (518) 235-0401
NAME AND ADDRESS OF PROJECT/FACILITY Norlite Corporation, P.O. Box 694, Cohoes, New York, 12047	
LOCATION OF PROJECT/FACILITY 628 South Saratoga Street (State Route 32)	

COUNTY	TOWN/CITY/VILLAGE	WATERCOURSE/WETLAND NO.	NYTM COORDINATES
Albany	Cohoes	Salt Kill Creek	E: 606.3 N: 4 734.2

DESCRIPTION OF AUTHORIZED ACTIVITY: Authorization to operate a hazardous waste management facility for storage of specified hazardous wastes in 5 to 85 gallon capacity containers with a total capacity of 14,685 gallons, storage/treatment in fifteen tanks with a total capacity of 155,579 gallons and incineration as a fuel in two rotary kiln industrial furnaces producing lightweight aggregate at a maximum firing rate of 10.3 gpm each.

Permit page modified : 1/18/2008

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, the General Conditions specified (see page 2) and any Special Conditions included as part of this permit.

REGIONAL PERMIT ADMINISTRATOR:	ADDRESS	
William J. Clarke	NYS DEC, Region 4 Headquarters 1130 North Westcott Road, Schenectady, NY 12306	
AUTHORIZED SIGNATURE William J. Clarke	DATE 1/16/2008	Page 1 of 9

PERM-GEN.WPT (7/20/93)

PART 373 PERMIT
MODULE V- LIGHT WEIGHT AGGREGATE KILNS (LWAKs) Requirements
EP1 AND EP2

A. CONSTRUCTION AND MAINTENANCE

(1) The Permittee shall operate and maintain the LWAKs, and their ancillary systems including but not limited to the closed vent system, air pollution control systems, waste, raw shale & fuel feed systems, clinker (product) cooler systems and process control & monitoring systems in accordance with this permit, its attachments, permittee's standard operating procedures and 6NYCRR Part 374-1.8.

(2) No modification to the LWAKs and their Air Pollution Control (APC) systems shall be made which would affect the achievement of the performance standards in Condition B, of this Module or any other operating conditions specified in the permit without first obtaining written approval from the Commissioner. This includes any changes to the APC systems, LWAKs physical construction including their feed (i.e. hazardous waste a/k/a LLGF, all types of oils, virgin fuels, LLGF vapors & raw shale) delivery system, closed vent system, process instrumentation, APC residues collection & management systems & clinker cooler systems, continuous emission monitoring instruments and automatic waste feed cutoff systems specified in condition D(1).

B. PERFORMANCE STANDARD

The Permittee shall maintain the LWAKs so that, when operated in accordance with the operating requirements specified in this permit, it will meet the following performance standards:

(1) The LWAKs must achieve a destruction and removal efficiency (DRE) of 99.99% for each principal organic hazardous constituent (POHC) designated in this permit for each waste feed. The POHCs designated in the hazardous waste feed are monochlorobenzene, carbon tetrachloride and perchloroethylene. The DRE shall be determined using the method specified in 6NYCRR 374-1.8(e).

(2) The LWAKs must not emit particulate matter in excess of 0.08 grains per dry standard cubic feet, when corrected for 7% oxygen in the stack gas in accordance with the formula specified in 6NYCRR 374-1.8(f).

(3) The permittee must control hydrogen chloride (HCl) and chlorine (Cl_2) emissions from the each LWAK stack such that the rates of emission of HCl and Cl_2 do not exceed 2.0 lbs/hr and 0.01 lb/hr respectively. These emission limits will be met by limiting the total feed rate of chlorine to the LWAKs as provided in Condition C of this module.

(4) The permittee must control emission of products of incomplete combustion (PICs) from the LWAKs such that the carbon monoxide (CO) levels in the stack gas, shall not

exceed 100 ppmv on an hourly rolling average basis (i.e., over any 60 minute period) continuously corrected to 7% oxygen, dry gas basis as explained in Condition D(3) of this module. CO and oxygen shall be continuously monitored and recorded by continuous emission monitors (CEMs) in conformance with "Performance Specifications for Continuous Emission Monitoring of Carbon Monoxide and Oxygen for Incinerators, Boilers, and Industrial Furnaces Burning Hazardous Waste" in Appendix 49 of 6 NYCRR Subpart 374-1.

(5) The permittee must control emissions of toxic metals from the LWAKs by limiting the total feed rate of each metal into the unit, as specified in Condition C(6) of this module

(6) $S0_2$ stack emissions shall not exceed 30 lbs/hr/kiln.

(7) Stack emissions of nitrogen oxides measured as NO_2 shall not exceed 61 lbs/hr/kiln.

(8) Compliance with the operating conditions specified in this permit will be regarded as compliance with the above performance standards. However, evidence that compliance with such permit conditions is insufficient to ensure compliance with the above performance standards may be "information" justifying modification, revocation, or suspension of the permit pursuant to 6NYCRR 621.14.

C. LIMITATION ON KILN FEEDS TO BE BURNED AND/OR ACCEPTED:

(1) The permittee may feed raw shale to the LWAKs to produce light weight aggregate (LWA). The Permittee may feed natural gas, no. 2, 4, 6 fuel oil, diesel & kerosene (virgin or re-refined), On-specification used oil (as defined in 6 NYCRR Part 374-2), off-specification used oil (as defined in 6 NYCRR Part 374-2), Waste Fuel A (as defined in 6 NYCRR Part 225-2.2(b)(9)), Waste Fuel B (except B-2) (as defined in 6 NYCRR Part 225-2.2(b)(10)), comparable fuels (as defined & meeting the requirements of 6 NYCRR Part 371.4(i)) and LLGF (i.e. liquid hazardous waste as described in Attachment C of this permit) from the front end of the kiln. The Permittee may burn LLGF in conjunction with one or more of the streams listed above.

(2) No LLGF or combination of LLGF & other feeds (except raw shale) listed in condition C(1) above, as fed to the LWAKs, shall exceed the design thermal capacity of 62M BTU/hr per kiln on an hourly rolling average basis.

(3) The total chlorine (both organic & inorganic) fed to the LWAKs through LLGF or combination of LLGF & other feeds listed in condition C(1) above shall not exceed 82.3 lb/hr per kiln on a 12 hour rolling average basis.

(4) The permittee shall not incinerate feeds listed in condition C(1) above containing over 25 ppm total PCBs (defined as the sum of the quantified Arochlors using Method 8082).

(5) The permittee shall not accept and incinerate any feeds listed in condition C(1) above (other than raw shale) in solid form generated from any on-site or off-site remedial or corrective action activities.

(6) The emission and mass feed rates of metals to the LWAKs through LLGF or combination of LLGF & other feeds listed in condition C(1) above shall not exceed the limits specified in the following table:

Metals	Maximum permitted emission rate per kiln lb/hr	Maximum permitted Total (i.e. metals fed through all feeds listed in C(1)) Metals Feed Rate [A&B] per kiln (lb/hr- 12 hour rolling average basis)	Maximum permitted Metals feed rate Rate [A&B] through all feeds listed in C(1) except raw shale per kiln (lb/hr--12 hour rolling average rolling basis)
Antimony	3.89E-05	0.31	0.22
Arsenic	1.03E-04	1.08	0.21
Barium	8.77E-05	12.17	0.97
Beryllium	9.66E-06	0.099	0.012
Cadmium	3.86E-05	0.36	0.32
Chromium(T)	1.04E-04	7.78	5.98
Copper	3.50E-04	13.12	9.48
Lead	6.60E-05	6.36	4.03
Mercury	1.68E-03	0.0081	0.0064
Nickel	9.74E-04	7.06	6.16
Selenium	1.32E-05	0.17	0.12
Silver	2.09E-05	0.18	0.13
Thallium	4.86E-05	0.35	0.26
Zinc	2.30E-03	25.61	10.32

A Sampling, analysis and feed planning prior to feeding streams listed in C(1) shall be performed in accordance with the approved Waste Analysis Plan, Attachment C of the permit.

B Permittee shall feed LLGF to the kiln only from the tanks which are continuously mechanically agitated. Permittee shall not feed streams listed in C(1) to the kiln directly from the portable containers, drums, loader, dump truck or truck tanker etc.

(7) No material (except raw shale) fed to the kilns shall be in solid form. The physical form of the feed streams listed in C(1) shall be a pumpable liquid with a viscosity not exceeding 3000 SUS at 80°F and % sediment not to exceed 8.3 % when measured by ASTM D1796-97. The Permittee shall not feed Solid LGF (i.e. SLGF) or SLGF blended with LLGF. The permittee may feed tank bottom & filter sludge which contains free

liquid as per SW 846 Method 9095A.

(8) The Permittee shall not accept and/or burn the following:

(a) Listed hazardous waste containing pesticides and/or herbicides or characteristics hazardous waste codes D012 to D017, D020 and D031.

(b) Hazardous Wastes, Off-specification used oil, Waste Fuel A, B and non-hazardous wastes with total PCBs (defined as the sum of the quantified Arochlors using Method 8082) greater than 25 ppm or any regulated PCBs wastes as defined in 6NYCRR 371 and 40 CFR Part 761. The Permittee shall provide written notice to the Department of any LLGF, off-Specification used oil fuel or Waste Fuel A shipment received with a total PCBs greater than 10 ppm within 24 hours of receipt of the analytical results.

(c) Hazardous Wastes, On-specification used oil, Off-specification used oil, Waste Fuel A, B and non-hazardous wastes containing polychlorodibenzo-p-dioxins (PCDD), polychlorodibenzo-p-furans (PCDF) or hazardous wastes with the following waste codes: F020, F021, F022, F023, F026, F027 and F028.

(d) Hazardous waste prohibited from thermal treatment pursuant to 6 NYCRR 376.1(c)(3), this permit and its attachments.

(e) Waste Fuel B-2 as defined in 6NYCRR Part 225-2.2(b)(10).

(f) Radioactive mixed waste.

(9) The permittee shall feed mined raw shale only from the back-end of the kilns to manufacture light weight aggregate. The permittee shall not feed contaminated shale or soil to the kilns to manufacture light weight aggregate.

(10)

[A] No used oil (on or off-specification) or mixture of used oil (on or off-specification) with Waste Fuel A and/or virgin oils can be accepted unless analyzed prior to acceptance and off-loading in accordance with 6 NYCRR 374-2 and the permittee's waste analysis plan (Attachment C). For the used oil (on or off-specification) or mixture of used oil (on or off-specification) with Waste Fuel A and/or virgin oils to be stored, burned and/or sold, the permittee shall meet the requirements of 6 NYCRR 374-2 and must ensure that the following additional criteria are met:

(a) Such oil

(i) is not a hazardous waste as defined by 6NYCRR 371 and the criteria found in this permit and attachments.
(ii) has a PCB concentration of 25 ppm or less.
(iii) is not an admixture of listed hazardous waste as defined in 6 NYCRR 371.4.

(iv) is not an admixture of comparable fuels as defined in 6 NYCRR 371.4(i)

(b) (i) Mixture of such oil and characteristics hazardous waste, which no longer exhibits any characteristic, is allowed to be burned as used oil but such mixing only by the used oil generator is allowed. The permittee is prohibited from blending used oil with any hazardous waste for any purpose.

(ii) Mixture of such oil and characteristics hazardous waste, which exhibits any characteristics identified in 6NYCRR 371.3, are subject to 6 NYCRR 370 through 374-1 and 376.

(c) Storage of such oil in tanks previously used for storage of hazardous wastes is not allowed unless such tanks have been cleaned and decontaminated as per 6NYCRR 373, this permit and its attachments prior to their use for used oil storage.

(d) Such oil containing more than or equal to 1000 ppm of total halogens is presumed to be hazardous waste and must be burned as hazardous waste complying with all the operating requirements in Module VII.D of this permit unless the presumption of mixing with hazardous waste can be rebutted by demonstrating that the used oil does not contain hazardous waste (for example by using an analytical method from most updated SW-846 to show that the concentrations of individual halogenated solvents listed in waste codes F001 and F002 are less than 100 ppm). Records of analysis conducted to rebut the presumption of mixing with hazardous wastes, must be retained at the facility for at least three years. Rebuttable presumption must be applied at the time of acceptance from the permitted transporter.

(e) The storage of such oil (except unadulterated on-specification used oil) must be in compliance with 6 NYCRR 360-14.3(e).

(f) If such oil meets the definition of Waste Fuel A (as defined in 6 NYCRR 225-2.2) and is intended to be stored, burned and/or sold, the permittee must meet the requirements of 6 NYCRR 225-2.

(g) Mixture of such oil and a waste which is hazardous solely because it exhibits the characteristic of ignitability (as defined in 6 NYCRR 371.3(b)) shall meet the requirements of 6 NYCRR 360-14 and 6 NYCRR 374-2 provided that the mixture does not exhibit the characteristic of ignitability. Such mixing only by the used oil generator is allowed.

[B] No Waste Fuel A or mixture of Waste Fuel A with used oil (on or off-specification) and/or virgin oils can be accepted unless analyzed prior to acceptance and off-loading in accordance with the permittee's waste analysis plan (Attachment C). For this oil to be stored, burned and/or sold, the permittee must meet the applicable requirements of 6 NYCRR 225-2 and must ensure that the following are met:

(a) Such oil

(i) is not a hazardous waste as defined by 6NYCRR 371 and the criteria found in this permit and attachments.
(ii) has a PCB concentration of 25 ppm or less.
(iii) is not an admixture of listed hazardous waste. as defined in 6 NYCRR 371.4.
(iv) is not an admixture of comparable fuels as defined in 6 NYCRR 371.4(i)

(b) (i) Mixture of such oil and a characteristics hazardous waste, which no longer exhibits any characteristic, is allowed to be burned as Waste Fuel A, but such mixing is allowed by the used oil generator only. The permittee is prohibited from blending Waste Fuel A with any hazardous waste for any purpose.

(ii) Mixture of such oil and characteristics hazardous waste, which exhibits any characteristics identified in 6NYCRR 371.3, are subject to 6 NYCRR 370 through 374-1 and 376.

(c) Storage of such oil in tanks previously used for the storage of hazardous wastes is not allowed unless such tanks have been cleaned and decontaminated as per 6NYCRR 373, this permit and its attachments prior to their use for used oil storage.

(d) Such oil containing more than or equal to 1000 ppm of total halogens is presumed to be hazardous waste and such Waste Fuel A or its mixture must be burned as hazardous waste complying with all the operating requirements in Module VII.D of this permit unless the presumption of mixing with hazardous waste can be rebutted by demonstrating that such Waste Fuel A or its mixutre does not contain hazardous waste (for example by using an analytical method from most updated SW-846 to show that the concentrations of individual halogenated solvents listed in waste codes F001 and F002 are less than 100 ppm). Records of analysis conducted to rebut the presumption of mixing with hazardous wastes, must be retained at the facility for at least three years. Rebuttable presumption must be applied at the time of acceptance from the permitted transporter.

(e) Storage of such oil (except unadulterated on-specification used oil) must be in compliance with 6 NYCRR 360-14.3(e).

(f) If such oil meets the definition of used oil of 6 NYCRR 374-2 and is intended to be stored, burned and/or sold, the permittee must meet the requirements of 6 NYCRR 374-2.

(g) Mixture of such oil and a hazardous waste which is hazardous solely because it exhibits the characteristic of ignitability (as defined in 6 NYCRR 371.3(b)) must meet the requirements of 6 NYCRR 360-14 and 6 NYCRR

374-2 provided that the mixture does not exhibit the characteristic of ignitability. Such mixing is allowed by the used oil generator only.

D. OPERATING CONDITIONS

(1) During operation of the LWAKs, hazardous wastes(LLGF), non-hazardous waste, Comparable fuels (as defined in 371.4(I)) if fed through LLGF tanks and Waste fuel B (as defined in 6NYCRR 225-2) shall not be fed into nor burned in the LWAKs unless the LWAKs meet the operating conditions set forth in Conditions C and & D of this module. By definition, startup and shutdown and waste feed cutoffs do not meet these operating conditions and therefore do not allow the feed into and burning of these materials in the LWAKs with the exception that after a waste feed cutoff the feed into and burning in the LWAKs of Waste Fuel A and/or off-specification used oil (as defined 6NYCRR 374-2.2) is permitted.

When all of the above materials are not being fed into and burned in the LWAKs, the permittee is restricted to feeding into and burning in the LWAKS natural gas, no. 2, 4, or 6 fuel oil, diesel & kerosene (virgin or re-refined), comparable fuel if fed through other than LLGF tanks or On-specification used oil (as defined in 6NYCRR 374-2 and this permit, Section C above) subject to the applicable provisions of 6NYCRR Part 374-2 and the requirements and emission limits found in the applicable NYS air emissions regulations. Waste Fuel A and Off specification used oil is also allowed during normal (non startup or shutdown modes) operation in the absence of hazardous waste, (LLGF) non-hazardous waste & Waste Fuel B in accordance with 6 NYCRR 225-2 and 374-2 respectively as well as the conditions in this permit.

The burning of Waste Fuel A & Off-specification used oil during normal operation in the absence of hazardous waste shall cease immediately any time the hourly rolling average carbon monoxide levels in the stack are at or above 500 parts per million at 7% Oxygen, dry as measured under D(3).

The permittee shall install and maintain an interlock system that will prevent burning liquid hazardous waste when the hourly rolling average Carbon Monoxide levels register >100 ppm while burning it with Waste Fuel A, B or Off-Specification Used Oil or On-Specification Used Oil or Comparable Fuels or natural gas or No. 2, 4 or 6 fuel oil or diesel or kerosene.

The feeds specified in condition C.1 shall be fed as per following table.

No.	Feed Description	Modes of LWAKs Operation		
		Normal Operation	Operation immediately after HW AWFCO	Startup & Shut Down of LWAKs
1	a) Hazardous waste (HW i.e. LLGF) with or without any of the feed streams described in this table b) Non-Hazardous waste & any stream handled through HW tank system c) Waste Fuel B	The permittee shall comply with operating conditions set forth in conditions C & D of this module.	The permittee is prohibited from feeding & burning these feed streams.	The permittee is prohibited from feeding & burning these feed streams.
2	Waste Fuel A and/or Off-Specification Used oil	If fed in absences of HW, the permittee shall comply with Carbon monoxide limit specified in Condition D.3.	The permittee shall comply with Carbon monoxide limit specified in Condition D.3.	The permitte is prohibited from feeding & Burning Waste Fuel A and/or Off-Specification used oil.
3	On-Specification Used oil	The permittee shall meet applicable provisions of 6 NYCRR 374-2 and NYS Air emissions regulations.	The permittee shall meet applicable provisions of 6 NYCRR 374-2 and NYS Air emissions regulations.	The permittee shall meet applicable provisions of 6 NYCRR 374-2 and NYS Air emissions regulations.
4	Comparable fuels when fed through HW storage/blending tanks	The permittee shall comply with conditions C & D of this module.	The permittee is prohibited from feeding & burning comparable fuel.	The permittee is prohibited from feeding & burning comparable fuel.
5	Comparable fuels when fed through its dedicated storage tanks system	The permittee shall meet provisions of 6 NYCRR 371-4(i) and applicable NYS Air emissions regulations.	The permittee shall meet provisions of 6 NYCRR 371-4(i) and applicable NYS Air emissions regulations.	The permittee shall meet provisions of 6 NYCRR 371-4(i) and applicable NYS Air emissions regulations.

No.	Feed Description	Modes of LWAKs Operation		
		Normal Operation	Operation immediately after HW AWFCO	Startup & Shut Down of LWAKs
6	Virgin Fuels and natural gas	The permittee shall meet applicable NYS Air emissions regulations.	The permittee shall meet applicable NYS Air emissions regulations.	The permittee shall meet applicable NYS Air emissions regulations.

(2) The Permittee shall control fugitive emissions from the combustion zone and the back end of the LWAK by continuously maintaining a negative kiln pressure at the hood of the kiln and maintaining the baghouse pressure drop below the maximum operating limit as specified in Condition D.3 of this module. If the hood pressure operating limit specified in the table below is exceeded, the permittee shall immediately & automatically cutoff hazardous waste (i.e. LLGF) feed to the kiln. Immediately after such cutoff, the permittee shall visually inspect the kilns for fugitive emissions. If the visual inspection reveals fugitive emissions, permittee shall immediately cease burning other liquid feed streams (other than the virgin fuels & on-specification used oil) and take appropriate corrective measures to control the fugitive emissions. The permittee shall resume feeding LLGF and other liquid streams after the fugitive emissions are stopped. Such fugitive emission incidences shall be reported in the monthly report in accordance with condition Module V.D.(9).

(3) The Permittee shall feed wastes described in Condition C of this module to the LWAK only under the following operating conditions. The Permittee shall operate, monitor, maintain and calibrate the systems specified below to automatically activate the alarm and cut off the hazardous waste to the LWAK at the levels specified below when the operating conditions deviate from the limits established below. This table below does not apply while solely burning on-specification used oil, Comparable Fuels, natural gas, Fuel oil No. 2 , 4, 6, diesel and/or kerosene.

The alarms and the automatic waste feed cutoff (AWFCO) systems listed below shall be tested in accordance with Condition E(3) of this module to ensure that, for each interlocked parameter, deviations from the allowed operating limits will result in a pre-cutoff alarm activation and/or an automatic cutoff of LLGF & Off-Specification used oil/Waste Fuel A as applicable. The permittee shall follow calibration and automatic waste feed cutoff check procedure specified in Attachment D of this permit.

Operating Parameters (measured by instrument tag #s provided in Appendix D-17 of Attachment D)	Averaging Period	Alarm Set-point	Automatic Waste Cutoff Limit[2]	Monitoring/ Recording7 Frequency	Calibration Frequency
Hazardous Waste (LLGF) feed rate, gpm[9]	HRA[1]	9.0 gpm (HRA[1])	>10.3 gpm (HRA[1])	Monitor Continuously[3] & record HRA every minute	Monthly
Off- Specification used Oil, Waste Fuel A, B feed rate (when co-fired with HW), gpm	HRA[1]	HRA Limit shall be set for each certified tank to comply with the feed rate limits of total chlorine, metals & Btu in condition (C) above.	HRA Limit shall be set for each certified tank to comply with the feed rate limits of total chlorine, metals & Btu in condition (C) above.	Monitor Continuously[3] & record HRA[1] every minute	Monthly
Kiln Back-end Temp. (^{0}F) Minimum Maximum	 HRA[1] HRA[1]	 910 1010	 < 896 >1030	Monitor Continuously[3] & record HRA every minute	Monthly
Stack gas Carbon Monoxide, ppm @ 7% O_2, dry[6]	HRA[1]	60 400	>100 while burning LLGF >500 while burning Waste Fuel A or Off-specification used oil in absence of LLGF (see condition D(1))	Monitor Continuously[3] & record HRA every minute	Daily calibration Quarterly CE Test. Annual Performance Specification Test as per Appendix 49 of 6 NYCRR Subpart 374-1.

Operating Parameters (measured by instrument tag #s provided in Appendix D-17 of Attachment D)	Averaging Period	Alarm Set-point	Automatic Waste Cutoff Limit[2]	Monitoring/ Recording7 Frequency	Calibration Frequency
Stack gas Oxygen (dry) %	HRA[1]	none	none	Monitor Continuously[3] & record HRA every minute	Daily calibration Quarterly CE Test. Annual Performance Specification Test as per Appendix 49 of 6 NYCRR Subpart 374-1.
Stack gas flow rate wet scfm	HRA[1]	44,500	>45,000	Monitor Continuously[3] & record HRA every minute	Monthly visual inspection. Quarterly clean up. Annual Relative Accuracy test as per Performance Specification 6, 40 CFR Part 60, Appendix B.
Kiln (i.e. Hood) pressure, "wg	INST[3]	-0.08	>-0.05	Monitor Continuously[3] & record maximum reading in a minute every minute[7]	Monthly
Baghouse[4] pressure drop, "wg	HRA[1]	< 5.6	< 5.1	Monitor Continuously[3] & record HRA every minute	Monthly
Scrubber Water Re-circulation rate, gpm	HRA[1]	194	< 180	Monitor Continuously[3] & record HRA every minute	Monthly calibration. Annual calibration by outside contractor.
Heat exchanger outlet temperature (^{0}F)	HRA[1]	448	> 453	Monitor Continuously[3] & record HRA every minute	Monthly
Inlet Temperature to Baghouse, ^{0}F	HRA[1]	390	>400	Monitor Continuously[3] & record HRA every minute	Monthly

Operating Parameters (measured by instrument tag #s provided in Appendix D-17 of Attachment D)	Averaging Period	Alarm Set-point	Automatic Waste Cutoff Limit[2]	Monitoring/ Recording7 Frequency	Calibration Frequency
Shale feed rate, tph	HRA[1]	21.0 (HRA[1])	>22[5] (HRA[1])	Monitor Continuously[3] & record HRA every minute	Monthly
Lime feed rate, lb/hr	HRA[1]	< equivalent of 3.3 lb/hr of lime per lb/hr chlorine feed	< equivalent of 3.2 lb/hr of lime per lb/hr chlorine feed	Monitor Continuously[3] & record HRA every minute	Monthly
Re-circulation tank pH	HRA[1]	8.2	<7.9	Monitor Continuously[3] & record HRA every minute	Monthly
Ventruri Pressure, drop, "wg	HRA[1]	3.5"	< 2.9"	Monitor Continuously[3] & record HRA every minute	Monthly
Ducon scrubber pressure drop "wg	HRA[1]	2.0"	< 1.5"	Monitor Continuously[3] & record HRA every minute	Monthly
Scrubber water blow down, gpm	HRA[1]	17	< 16.2	Monitor Continuously[3] & record HRA every minute	Monthly calibration. Annual calibration by outside contractor.
LLGF Line pressure, psig	HRA[1]	40	< 35	Monitor Continuously[3] & record HRA every minute	Monthly
LLGF atomization pressure, psig	HRA[1]	60	< 52	Monitor Continuously[3] & record HRA every minute	Monthly

1. Hourly Rolling Average (HRA) is a average of immediately preceding 60 one minute average values. The permittee shall ignore periods of time when one minute average values are not available for calculating HRA. When one minute average values become available again, the first one minute average value is added to the previous 59 values to calculate the HRA.

2. The permittee shall operate the LWAKs with the functioning system that immediately and automatically cuts off the LLGF when: a) the values for operating parameters exceed their limits of the "Automatic Waste Cutoff limit" column in the table of condition D(3) above b) the process monitoring instrument (including CO & O2 monitors)

malfunctions and c) any component of the automatic waste feed cutoff system fails. Automatic waste cutoff shall be without any time delay unless specifically mentioned.

The permittee shall operate the LWAKs with the functioning system that immediately and automatically cuts off the Off-specification used oil/Waste Fuel A when: a) CO concentration exceeds 500 ppm @ 7% O2, dry on HRA basis while solely burning off-specification used oil/Waste fuel A b) the process monitoring instrument (including CO & O2 monitors) malfunctions and c) any component of the automatic waste feed cutoff system fails. Automatic waste cutoff shall be without any time delay unless specifically mentioned.

3. Continuous means reading taken at least once every 15 seconds.

4. The Permittee shall continuously operate all three bag house modules while burning hazardous waste (i.e. LLGF).

5. Hazardous wastes (i.e. LLGF) may be fed to the LWAKs for a maximum period of 30 minutes prior to introducing shale to the kilns, provided that all other operating conditions specified in the table of Condition D(3) above are met prior to feeding hazardous wastes (i.e. LLGF). If a cessation of shale feed results during operation, the Permittee shall, within 30 minutes, stop the hazardous waste (i.e. LLGF) feed to the kilns if the shale feed has not been restored within 30 minutes of its stoppage.

6. Instantaneous CO concentration should be corrected for 7% O_2 using following formula prior to calculating hourly rolling average corrected CO concentration.

$$Instantaneous CO ppmv(dry) @ 7\% O_2 = CO(14.0/21.0 - O_2)$$

where: CO= Instantaneous CO ppmv (dry) reading
O_2= Instantaneous O_2 % (dry) reading corresponding to instantaneous CO reading

7. The permittee shall retain all the instantaneous and one minute average readings of all parameters (except for hood pressure & feeds flow rates) listed above for at least two hours. The permittee shall retain instantaneous readings of the hood pressure for at least two hours. The permittee shall retain all the instantaneous and one minute average readings of feeds flow rates listed above for at least thirteen hours. All readings recorded as per the "Monitoring/Recording[7] Frequency" column in the above table shall be retained until the closure of the facility.

(4) The permittee shall maintain the minimum back end temperature limit specified in the table of condition D(3) while hazardous waste or hazardous waste residues remains in the combustion chamber.

(5) The permittee shall duct combustion gases through entire air pollution control system all the time LWAKs are operating.

(6) The permittee shall monitor & record the operating parameters listed in condition D(3) above all the time while operating the LWAK. If the monitoring instrumentation for any of the operating parameters (listed in 1st column) malfunctions, LLGF feed will be cutoff automatically and the Permittee may continue or initiate feeding Off-specification used oil/Waste Fuel A provided that the Carbon Monoxide (CO) & Oxygen monitors are functioning properly and the CO concentration is below 500 ppmv at 7% oxygen. The permittee shall not start or restart LLGF &/or Off-specification used oil/Waste Fuel A feeds after AWFCO until all the applicable operating parameters are within the specified limits in condition D(3) above.